	BCM SCHOOL BASANT AVENUE DUGRI ROAD LUDHIANA	
	CLASS XII (041) MATHS	
1	Vectors \vec{a} and \vec{b} be such that $ \vec{a} = 3$, and $ \vec{b} = \frac{\sqrt{2}}{3}$, then $\vec{a} \times \vec{b}$ is a	1
	unit vector. Find angle between \vec{a} and \vec{b} .	
	(A) $\frac{\pi}{4}$ (B) $\frac{\pi}{3}$ (C) $\frac{\pi}{6}$ (D) $\frac{\pi}{2}$	
2	If $\vec{a} = 2\hat{i} + 2\hat{j} + 3\hat{k}$, $\vec{b} = -\hat{i} + 2\hat{j} + \hat{k}$, $\vec{c} = 3\hat{i} + \hat{j}$ are such	1
	that $\vec{a} + \lambda \vec{b}$ is $\perp to \vec{c}$ is then find the value of λ .	
	(A)8 (B)6 (C)-6 (D)1	
3	If \vec{a}, \vec{b} and \vec{c} be three vectors such that $\vec{a} + \vec{b} + \vec{c} = 0$	2
	and $ \vec{a} = 3$, $ \vec{b} = 5$, $ \vec{c} = 7$ find the angle between \vec{a} and \vec{b} .	
4	Let \vec{a}, \vec{b} and \vec{c} be three vectors such that $ \vec{a} = 3$, $ \vec{b} = 4$, $ \vec{c} = 5$	2
	and each one of them being \perp to the sum of the other	
	two, find $ \vec{a} + \vec{b} + \vec{c} $	
5	If $\vec{a} = 4\hat{i} + 2\hat{j} - \hat{k}$, $\vec{b} = 5\hat{i} + 2\hat{j} - 3\hat{k}$. find the angel between the	2
	vectors $\vec{a} + \vec{b}$ and $\vec{a} - \vec{b}$	
6	If $\vec{a} = \hat{i} + \hat{j} + \hat{k}$ and $\vec{b} = \hat{j} - \hat{k}$ find a vector \vec{c} such that $\vec{a} \times \vec{c} = \vec{b}$ and $\vec{a} \cdot \vec{c} = 3$	3
7	If \vec{a} , \vec{b} and \vec{c} be unit vectors such that \vec{a} . $\vec{b} = \vec{a}$. $\vec{c} = 0$	4
	and the angle between \vec{b} and \vec{c} is $\frac{\pi}{6}$ prove that \vec{a} =	
	$\pm 2(\vec{b} \times \vec{c})$.	